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"Welcome Shelter Near Trail's End"

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR OREGON

MARCH 1, 1947

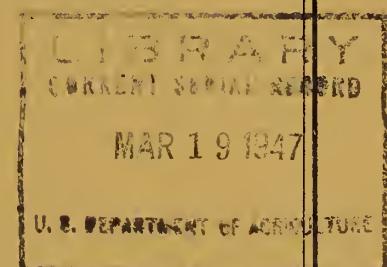
By

Division of Irrigation, Soil Conservation Service

United States Department of Agriculture

and

Oregon Agricultural Experiment Station



Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

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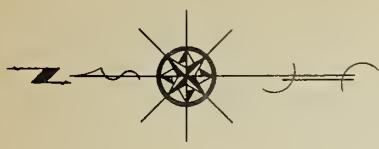
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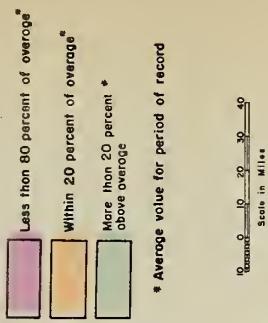
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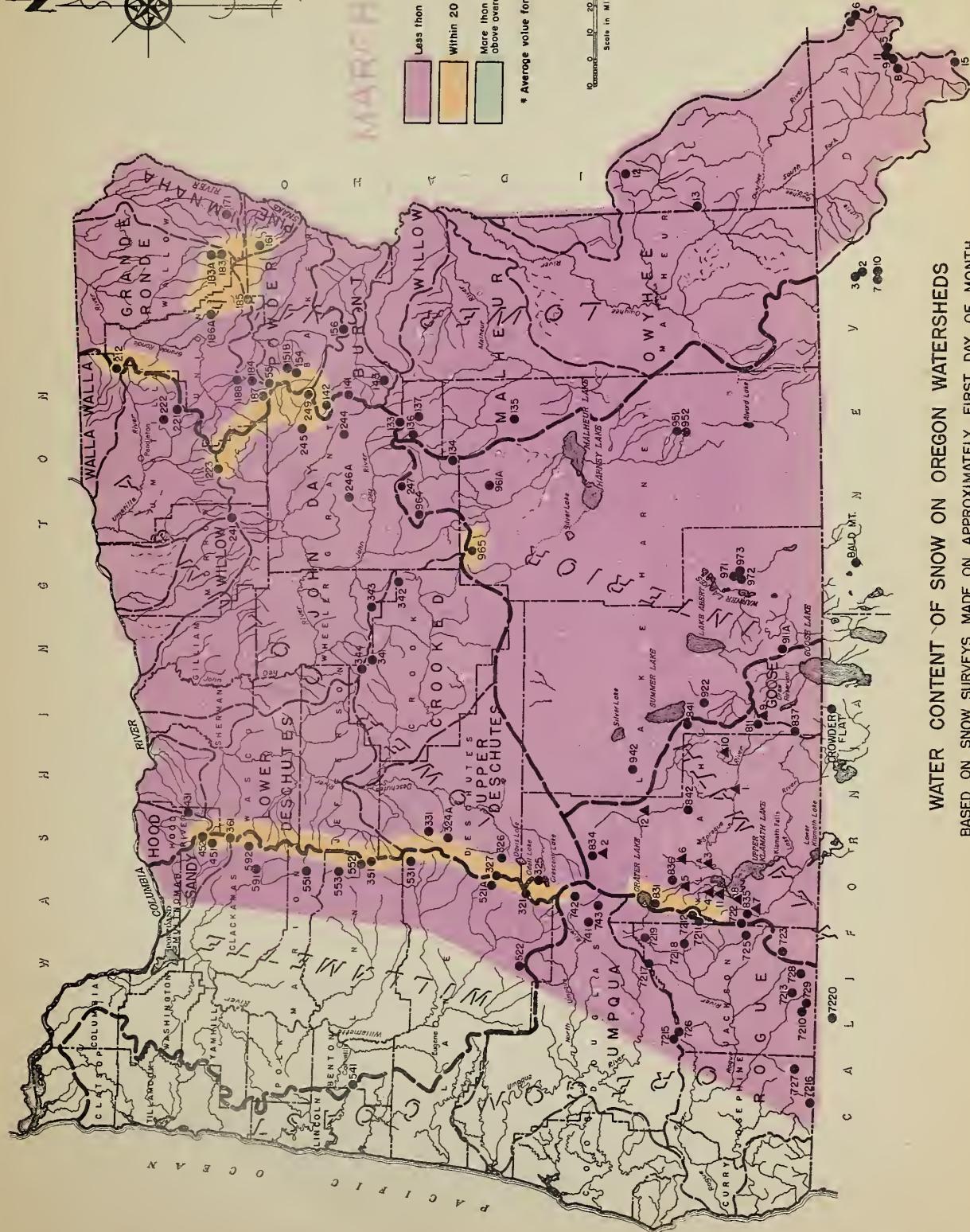




MARCH 1945



Scale in Miles



March 1, 1947

PRELIMINARY WATER SUPPLY OUTLOOK

The outlook for Oregon's 1947 water supplies varies widely through the state from "good" to critically short. Reservoir water supplies are "fair" to "good" due largely to "hold over" from heavy 1946 runoff.

Mountain snow cover, as of March 1, is below average on 92 percent of all measured snow courses in Oregon and on 37 percent of the snow courses new low records of snowfall were established. Water content of the snow above 5000 feet is 66 percent of average and only 46 percent of average below 5000 feet. Even if snowfall greatly above normal occurs during March some parts of the state will probably have short supplies. The Warner Valley and Harney-Malheur Lake Basins will have greatly restricted water supplies as will also the lands not served from reservoirs in the Goose Lake, Silver Lake, Crooked River, and Malheur River areas.

Watershed soils are well saturated under the snow mantle, thus favoring a well sustained runoff from the spring snow-pack. In areas of light snow cover, however, the soils are generally frozen, a condition which usually favors rapid runoff.

Total water stored in all reservoirs is 5 percent less than of similar date last year, 9 percent more than of this date in 1945, 1 percent more than in 1944, and is 4 percent greater than average. 55 percent of important Oregon reservoirs are half full or better.

Precipitation accumulated in Oregon valleys since October 1 is below normal in all parts of the state except the Southeastern range lands, the Blue Mountains, and the Willamette Valley. Greatest deficiency is in the Columbia River wheat and range lands.

Preliminary forecasts of April-September stream flow, based on existing mountain snow cover, and on the assumption that snow cover increase during March will be average, are listed on page 2 of this report. Final 1947 snow surveys and forecasts will be published on the 9th of April.

PRELIMINARY STREAMFLOW FORECASTS, March 1, 1947

The following preliminary runoff forecasts are based on present mountain snow cover and on the assumption that average increase of snow cover will occur during March. Greater or less than average increase in mountain snow cover during March will correspondingly modify these estimates:

BASIN AND STREAM	Apr.-Sept., inc. Streamflow in Thous.A.F.				
	Forecast 1947	Measured 1946	Runoff 1945	10-yr.avg. 1944	1936-45
<u>NORTHCENTRAL OREGON</u>					
Hood River, West Fork near Dee	150.0	a	149.8	106.4	136.5
<u>UMATILLA-WALLA WALLA</u>					
Umatilla River at Pendleton	100.0	a	188.7	122.7	152.4
Walla Walla River, S.Fork near Milton	56.0	a	69.8	55.8	62.8
<u>NORTHEASTERN OREGON</u>					
Wallowa R., E.Fk. and Power Plant	13.0	13.3	10.9	8.5	10.1
Hurricane Cr. near Joseph	48.0	a	41.8	32.6	39.4
Lostine River near Lostine	126.0	a	125.6	89.8	110.2
Bear Creek near Wallowa	63.0	a	65.5	55.3	62.6
Grande Ronde River near LaGrande	110.0	a	168.4	93.3	155.0
<u>EASTERN OREGON</u>					
Strawberry Creek near Prairie City	6.0	9.9	8.0	5.1	7.5
Malheur R., Mid.Fk. near Drewsey	30.0	a	80.4	27.2	73.2
Malheur R., N.Fk., at Beulah	28.0	a	53.6	29.9	56.9
<u>HARNEY BASIN</u>					
Silvies River, near Burns	30.0	a	98.6	22.5	84.4
<u>CENTRAL OREGON</u>					
Ochoco Reservoir Net Inflow	2.5	a	29.6	5.3	18.0
Crescent Lake Net Inflow	12.0	a	11.1	9.2	12.7
Odell Creek near Crescent	25.0	a	24.1	20.1	24.4
Tumalo Creek and Col.So.Canal	39.0	a	38.5	30.5	41.8
Squaw Creek near Sisters	45.0	a	38.4	30.6	44.1
<u>SOUTHCENTRAL OREGON</u>					
Deep Creek above Adel	20.0 ^b	a	70.2 ^b	40.1 ^b	62.2 ^b
<u>KLAMATH BASIN</u>					
Upper Klamath Lake Net Inflow	365.0	557.0	409.9	395.9	481.7
<u>SOUTHERN OREGON</u>					
Hyatt Prairie Reservoir Net Inflow	2.0	a	5.8	4.2	5.8
Fourmile Lake Net Inflow	5.0	a	7.3	5.9	6.9
Little Butte Creek, N.Fk., below Fish Lake (Natural Flow)	9.5	a	13.8	11.5	13.3
Rogue River N.Fk. above Prospect	210.0	370.4	295.4	237.3	286.6
Clearwater River above Trap Creek	49.0	65.7	55.5	55.1	56.8
No. Umpqua River below Lake Creek	122.0	179.1	148.6	133.7	145.0
No. Umpqua River at Toketec Falls	280.0	407.3	348.1	295.4	336.8
<u>WILLAMETTE VALLEY</u>					
Willamette River Mid.Fk. at Eula	730.0	a	889.2	555.6	749.4
McKenzie River at McKenzie Bridge	490.0	a	533.9	422.7	512.7
McKenzie River near Vida	1000.0	a	1230.8	862.9	1103.9

a. 1946 Discharge record not available. b. April-June rather than April-Sept.

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COMPARISON OF SNOW COVER AS OF MARCH FIRST WITH THAT OF PREVIOUS YEARS

Snow-stored water now present above 5,000 feet:		Snow-stored water now present from 2,000-5,000 feet:									
As percent of that present one month ago	---	As percent of that present one month ago									
As percent of that present one year ago	---	As percent of that present one year ago									
As percent of that present two years ago	---	As percent of that present two years ago									
As percent of average	---	As percent of average									

Snow water content on 100 percent of all measured courses is less than on about March 1 of 1945. Snow water content on 92 percent of all measured courses is less than average for the period of record.

Given below is a tabulation showing inches snow-stored water for the March 1 record period on thirteen scattered snow courses.

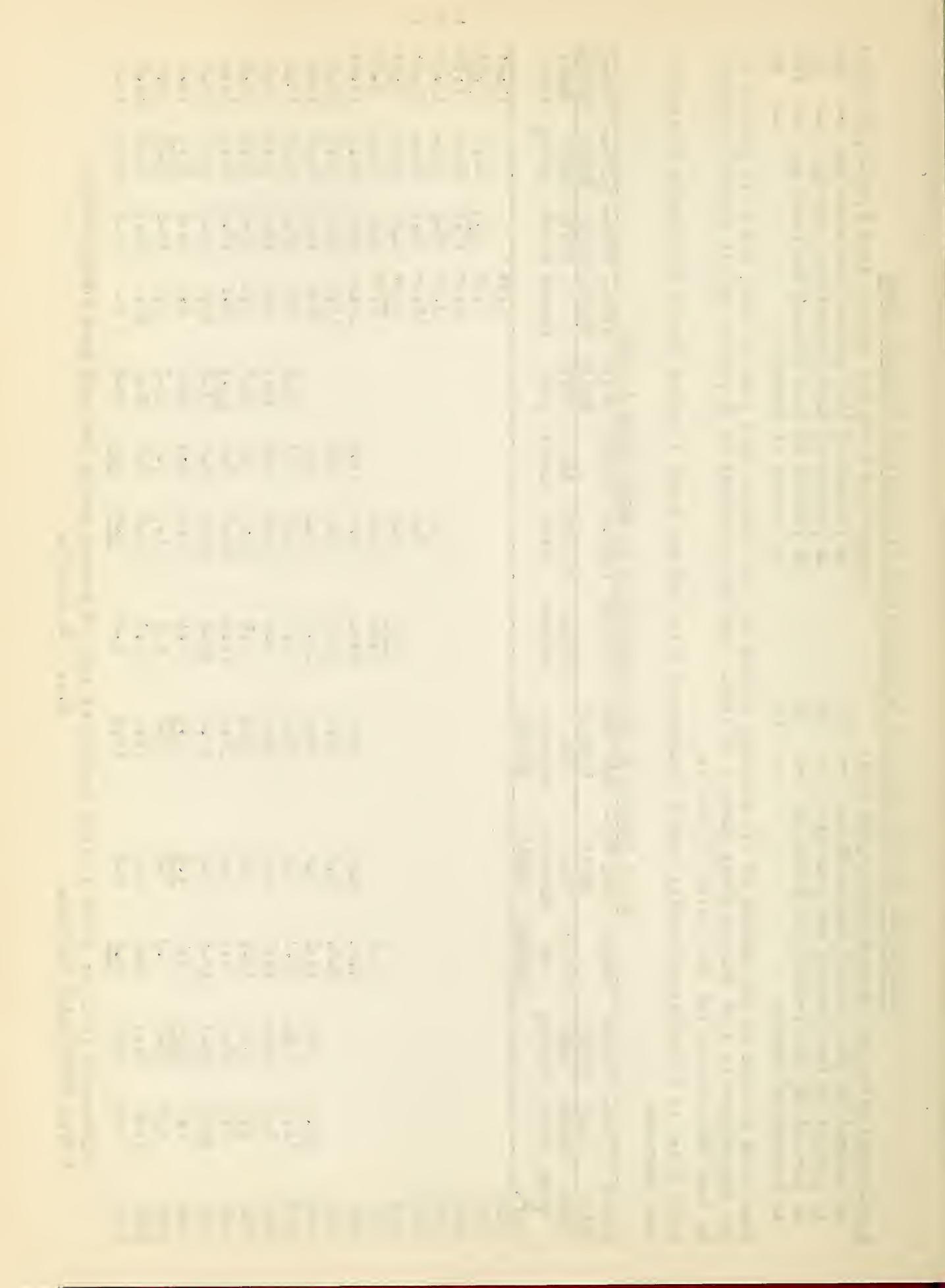
Water Content of Snow (Inches) as of About March 1, 1947

Year	Snow Course	Peavine Ridge	Clackamas Basin	Grande Ronde	Powder Burnt	John Day - Blue	Crooked Malheur	Owyhee Walla Walla	Harney Desch.	Klamath Toll.	Klamath Summit gate	Klamath Creek Billie Spring	Klamath Lake Annie	Rogue Diam.	Umpqua Lake
1929															
1930															
1931															
1932															
1933															
1934															
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1946															
1947															

Underscored is least March 1 water content of snow of record period for each snow course shown.

* From COPCO Water Station.

N.R. = No report.



STATUS OF SNOW COVER AS OF MARCH FIRST
Summary of Snow Survey Data
By Watersheds as of About March First

Stream Basin	Number Of Snow Courses	Average Water Depth in Snow Cover (Inches)			Yrs. Avg. Past Yrs. of Record	Yrs. of Rec- ord	1947 Snow Water Depth (Inches) as Percent of that in		
		Averaged	1947	1946	1945		1946	1945	Avg.
Owyhee River	13	3.1	8.3				37		
	13	3.1		8.8				55	
	14	3.5			9.2	(7-16)			38
Malheur River	6	5.1	12.0				42		
	6	5.1		5.9				86	
	6	5.1			9.1	(2-11)			56
Burnt River	4	5.8	13.2				44		
	4	5.8		8.2				71	
	4	5.8			9.1	(2-11)			64
Powder River	3	12.1	19.8				61		
	4	6.9		10.5				66	
	5	11.3			13.6	(7-10)			83
Grande Ronde River	7	19.4	26.2				74		
	6	17.8		13.4				133	
	7	19.4			18.2	(3-10)			106
Walla Walla River	1	19.4	35.5				55		
	1	19.4		15.3				127	
	1	19.4			23.1	(8)			84
Umatilla River	4	8.1	19.3				42		
	4	8.1		9.4				86	
	4	8.1			12.8	(8-10)			63
Willow Creek	1	5.9	14.8				40		
	1	5.9		9.1				65	
	1	5.9			10.5	(6)			56
John Day River	8	6.8	13.7				50		
	9	7.0		8.1				86	
	9	7.0			10.2	(3-11)			69
Deschutes River	5	14.8	28.5				52		
	4	16.2		11.0				147	
	5	14.8			18.2	(1-11)			81
Crooked River	3	1.6	10.1				16		
	3	1.6		4.8				33	
	3	1.6			6.9	(4-11)			23
Sandy River	3	20.9	41.8				50		
	3	20.9		12.4				168	
	3	20.9			22.5	(5-9)			93

(Continued)

Stream Basin	Number Of Snow Courses	Average Water Depth in Snow Cover (Inches)				Yrs. of Avg. Past Yrs. of Record	1947 Snow Water Depth (Inches) as Percent of that in 1946 1945 Avg.		
		Averaged	1947	1946	1945		Rec- ord	1946	1945
									Avg.
Clackamas River	1	8.5	19.5					44	
	1	8.5		6.8					125
	1	8.5			12.8	(9)			66
Willamette River	6	13.3	30.6					43	
	6	13.3		7.1					187
	6	13.3			16.9	(3-8)			79
Chewaucan River	1	3.9	9.6					41	
	1	3.9		5.9					66
	1	3.9			6.8	(8)			57
Harney Basin	7	2.8	8.5					33	
	5	4.0		5.6					71
	7	2.8			7.1	(3-11)			39
Silver Lake Basin	1	0.0	4.1					0	
	1	0.0		0.0					0
	1	0.0			3.4	(7)			0
Warner Lake	1	3.0	13.0					23	
	1	3.0		8.8					34
	1	3.0			9.8	(3)			31
Guano Lake	2	0.6	5.4					11	
	1	0.6		3.3					18
	2	0.6			6.0	(6-7)			10
Umpqua River	2	8.0	33.5					24	
	2	8.0		7.3					110
	2	8.0			17.5	(8-18)			46
Upper Rogue River	9	11.0	25.8					43	
	9	11.0		9.9					111
	11	13.4			23.2	(3-15)			58
Applegate River	2	6.6	17.6					38	
	3	8.9		9.7					92
	3	8.9			17.4	(5-9)			51
Illinois River	2	2.0	12.7					16	
	2	2.0		4.0					50
	2	2.0			10.9	(5-8)			18
Klamath Lake Basin	17*	6.2	17.9					35	
	16*	6.6		7.1					93
	20*	8.2			15.6	(2-20)			52
Goose Lake Basin	3*	1.0	11.0					9	
	3*	1.0		7.4					14
	3*	1.0			7.9	(3-16)			13

*Including Copco water measurement stations.

STATUS OF RESERVOIR STORAGE, March 1, 1947

BASIN AND STREAM	RESERVOIR	USABLE CAPACITY (Thous.A.F.)	THOUS.A.F. IN STORAGE ABOUT MARCH 1.					10-yr. avg. 1936-45			
			1947	1946	1945	1944					
UPPER COLUMBIA DRAINAGE											
LOWER SNAKE IN OREGON											
Owyhee	Antelope	36.5	N.R.	N.R.	12.7	1.2	9.4				
	Owyhee	715.0	541.6	607.0	501.2	497.2	542.4				
Malheur	Warm Springs	191.0	121.2	87.0	65.6	116.1	95.6				
	Agency Valley	60.0	43.3	43.7	50.2	43.3	37.0				
	Willow Creek	26.0	N.R.	N.R.	N.R.	10.8	4.5				
Burnt	Unity	25.2	11.9	11.8	11.7	7.1	9.4				
Powder	Thief Valley	17.4	N.R.	17.6	17.4	12.7	14.2				
Grande Ronde	Wallowa Lake	40.9	24.8	11.6	10.7	31.2	19.7				
LOWER COLUMBIA DRAINAGE											
Umatilla	Mc Kay	74.0	56.7	44.5	39.5	39.1	35.5				
	Cold Springs	50.0	43.3	42.0	28.1	39.2	34.7				
Deschutes	Ochoco	46.0	26.2	35.2	4.5	22.8	13.7				
	Crescent Lake	80.0	50.1	32.4	33.3	54.2	34.3				
	Crane Prairie	50.0	40.6	39.6	27.1	46.2	33.2				
	Wickiup	180.0	82.8	55.5	54.3	0.0	19.5 ^e				
	Rock Creek	1.4	N.R.	1.4	N.R.	0.5	0.5 ^f				
Willamette	Cottage Grove	33.1 ^b	9.0	12.0	10.0	7.9	9.6 ^e				
	Fern Ridge	101.2 ^b	33.0	31.0	31.0	15.7	33.0 ^g				
WEST COAST DRAINAGE											
Rogue	Fish Lake	7.7	4.3	3.9	3.7	7.0	4.7				
	Fourmile Lake ^a	16.0	4.8	5.0	7.9	11.8	7.6				
	Emigrant Gap	8.2	4.9	8.2	4.8	2.8	5.8				
	Hyatt Prairie ^a	16.0	4.8	2.9	3.1	7.0	6.1				
Klamath	Upper Klamath	584.0 ^c	324.1	401.1	302.7	355.6	405.3				
	Gerber	94.0	36.8	23.2	52.2	45.2	42.2				
	Clear Lake	440.2	211.3	244.1	279.7	294.0	205.0				
Goose Lake	Cottonwood	4.1	0.8	0.2	1.4	0.3	0.6 ^h				
	Drew	62.5	27.4	47.0	41.0	38.8	37.8				

N.R.= No report

a = By ditch to Rogue River side
from Klamath drainage.

b = Storage space reserved for flood control

c = Based on gage zero elevation of 4135.0

d = Excl. '36, '42, '45

e = 1943-45

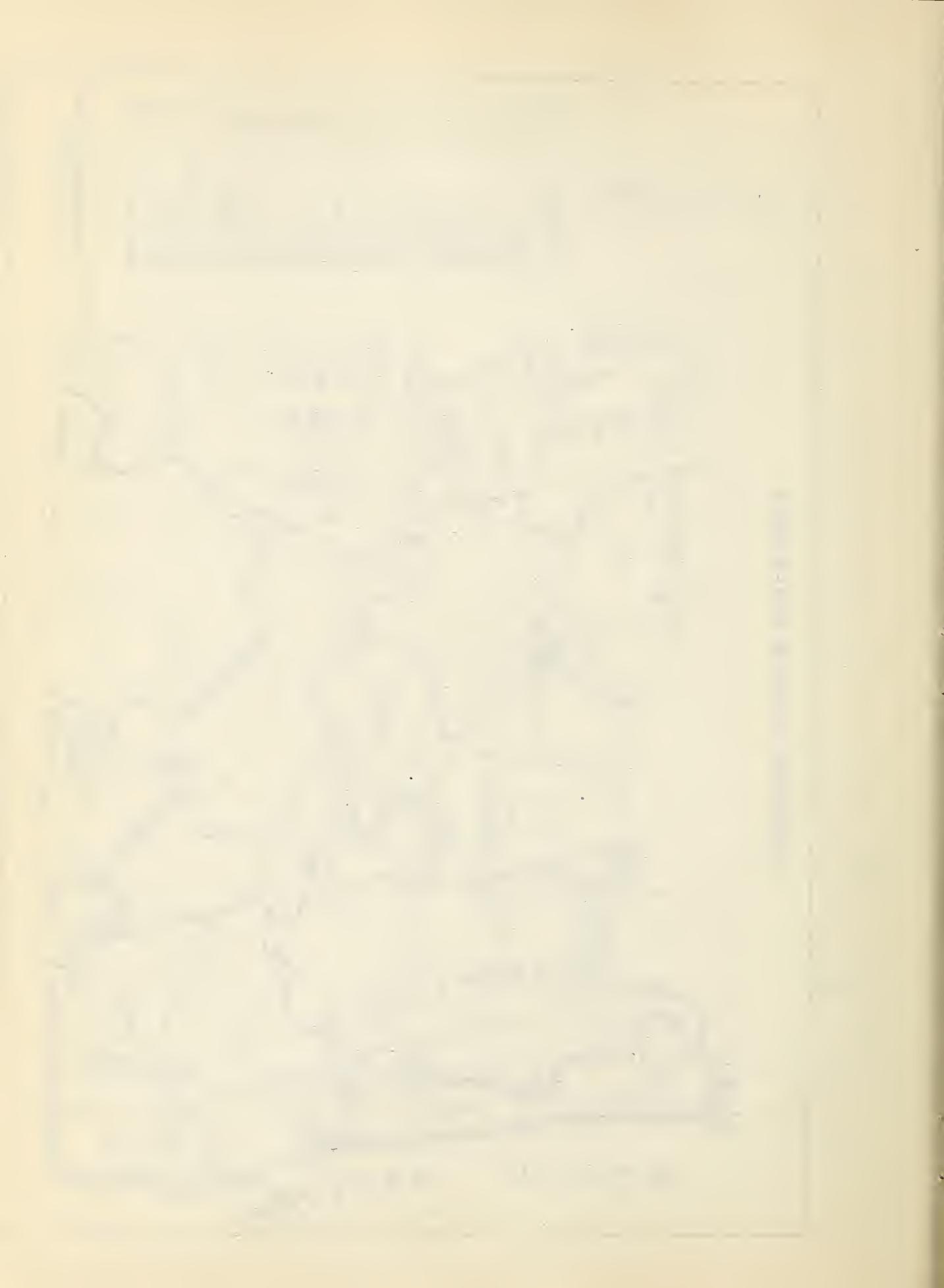
f = 1944 only

g = 1942-45

h = Excl. '37, '38, '42

IMPORTANT OREGON RESERVOIRS





VALLEY PRECIPITATION^a

DIVISION	CURRENT YEAR		LAST YEAR	
	Oct. 1, 1946 - March 1, 1947	P	Oct. 1, 1945 - March 1, 1946	D
Southeastern	5.0	+0.2	5.68	+0.43
Southcentral	7.3	-2.0	9.70	+1.30
Northcentral	5.7	-1.1	10.18	+2.75
Columbia River	5.4	-2.1	7.88	+0.40
Wallowa Mountains	6.7	-1.0	7.81	-0.58
Blue Mountains	9.8	-0.2	10.59	+0.50
Southern	12.9	-2.9	19.70	+4.29
Willamette Valley	35.9	+1.2	41.55	+7.21

P = Inches Precipitation

D = Inches Departure from Normal

- Southeastern: Southeastern Oregon range lands, Harney and Malheur Counties.
- Southcentral: Southcentral Oregon range lands, Lake County and Klamath County, except the Cascade Mountains.
- Northcentral: Northcentral Oregon wheat and range lands, Crook, Deschutes, Jefferson, Wheeler, and part of Grant Counties.
- Columbia River: Columbia River area, wheat and range lands, Gilliam, Morrow, Sherman, Wasco, and part of Umatilla Counties.
- Wallowa Mountains: Wallowa Mountain area, forest and range lands, Wallowa and part of Baker County.
- Blue Mountains: Blue Mountain forest and range lands, Union and parts of Baker, Grant, and Umatilla Counties.
- Southern: Southern Oregon irrigated section, Jackson and Josephine Counties.
- Willamette Valley: Parts of Polk, Benton, Yamhill, Washington, and Lane; all of Linn, Marion, Clackamas, and Multnomah Counties.

OREGON SNOW SURVEYS, MARCH, 1947

DRAINAGE BASIN and SNOW COURSE	Number or State	LOCATION			SNOW COVER MEASUREMENTS					
		Sec.	Twp.	Range	Date	Snow of Depth	Survey (In.)	1946	1945	Past Record Same Approx. Date
		UPPER	COLUMBIA	DRAINAGE						Av. Water Content of Record (Inches)
		LOWER	SNAKE	INDIANA						
CNYHEE RIVER										
Big Bend	Nev.	30	45N	56E	6800	3-4	20.6	*5.3	10.1	8.1
Fry Canyon	Nev.	32	43N	54E	6800	3-1	16.6	*4.3	8.8	8.6
Gold Creek Ranger Sta.	Nev.	32	45N	56E	6600	3-4	12.8	*3.2	7.3	6.3
Granite Peak	Nev.	27	44N	39E	8600	2-28	19.5	*6.8	12.9	11.4
Lower Buckskin	Nev.	25	45N	39E	6800	No Measurement	7.1	8.8	14	12.4
Lower Jack Creek	Nev.	19	42N	53E	7000	3-2	7.0	*1.2	5.2	6.6
Martin Creek	Nev.	24	44N	39E	7000	2-28	10.8	*3.8	6.7	6.8
Mary's River	Nev.	4	44N	58E	8000	2-26	30.5	*9.2	-	-
Rodeo Flat	Nev.	31	43N	54E	7000	3-1	16.6	*4.7	9.5	10.0
South Mountain No. 2	Idaho	35	7S	5W	6340	3-1	14.9	5.4	15.1	12.5
Taylor Canyon	Nev.	32	39N	53E	5200	3-2	2.4	*0.5	6.7	7.6
Tremewan Ranch	Nev.	4	29N	55E	5600	3-1	0.0	*0.0	2.5	2.2
Upper Buckskin	Nev.	14	45N	39E	8200	No Measurement	6.4	14.2	14	3.0
Upper Jack Creek	Nev.	9	42N	53E	7800	3-2	22.8	*5.2	9.7	9.9
MAILEUR RIVER										
Barney Creek	143	16	14S	36E	5950	2-28	18.3	6.7	10.8	4.6
Blue Mountain Springs	133	21	15S	35E	5900	2-27	34.4	10.4	19.6	10.4
Crane Prairie	137	24	16S	34E	5375	2-26	16.9	5.8	12.8	6.5
Lake Creek	136	10	16S	33 ¹ E	5120	2-26	18.9	5.5	14.6	8.2
Rock Spring	134	23	18S	32E	5100	3-1	6.1	2.0	8.0	7.1
Stinking Water	135	33	21S	34E	4800	3-1	0.0	0.0	6.2	4.6

a - Estimated

* Telegraphic: subject to minor revision

OREGON SNOW SURVEYS, MARCH, 1947

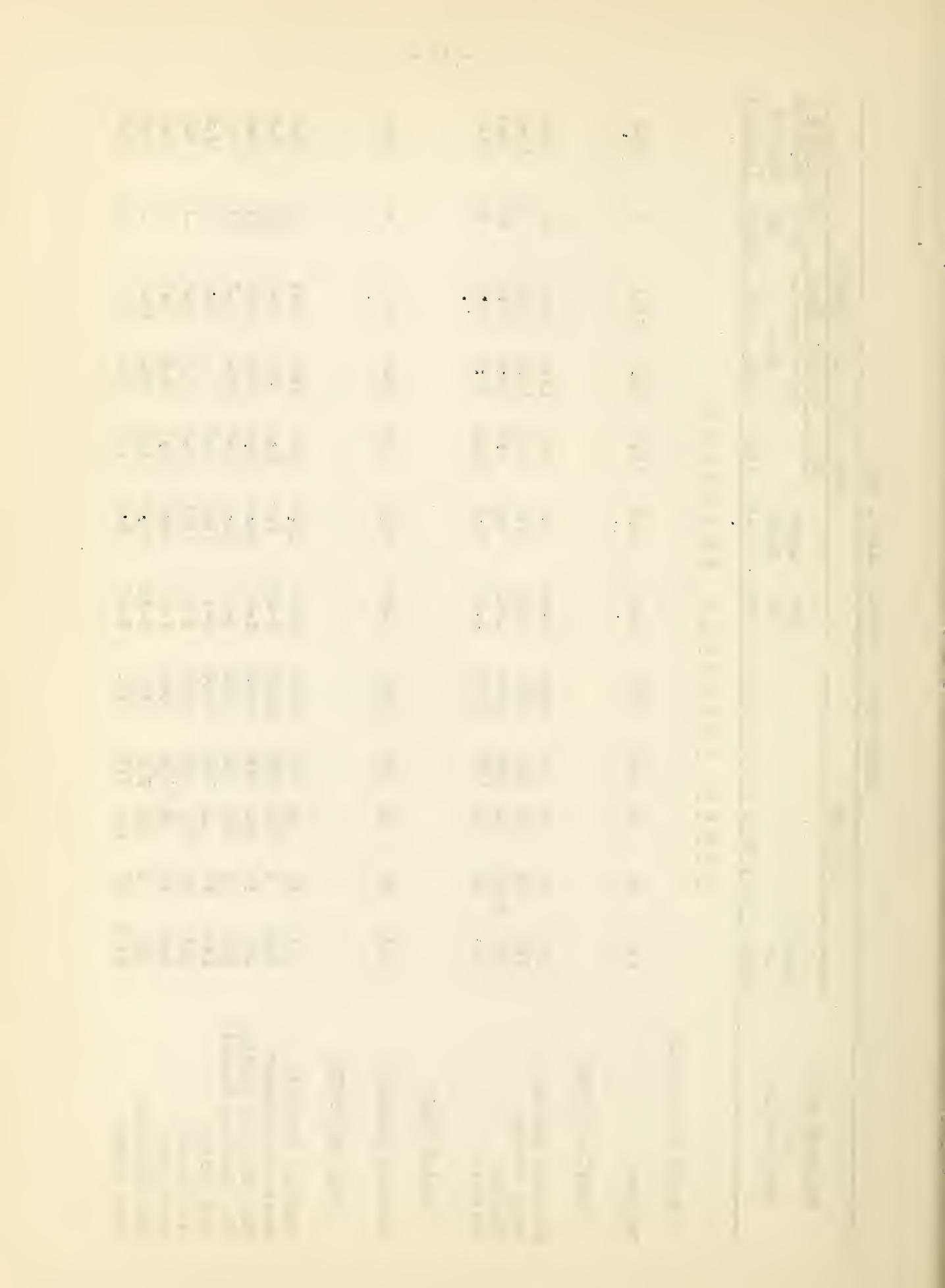
DRAINAGE BASIN and SNOW COURSE	LOCATION				SNOW COVER MEASUREMENTS					
	Number or State	Sec.	Twp.	Range	Elev.	Date of Survey (In.)	Snow Depth (In.)	Water Content Same Approx. Date Survey (In.)	Years of Record 1945	Past Record
BURNT RIVER										
Barney Creek	143	16	14S	36E	5950	2-28	18.3	6.7	10.8	4.6
Blue Mountain Summit	141	6	12S	36E	5098	2-27	15.1	5.2	12.3	7.3
Dooley Mountain	156	32	11S	40E	5430	2-28	10.6	3.8	12.1	9.4
Tipton	142	34	10S	35½E	5100	2-24	14.7	7.7	17.6	11.7
POWDER RIVER										
Anthony Lake	155	18	7S	37E	7125	3-4	70.0	28.8	31.8	-
Bourne	154	33	8S	37E	5800	3-2	36.4	11.2	-	14.0
Dooley Mountain	156	32	11S	40E	5430	2-28	10.6	3.8	12.1	9.4
Eiertson Meadows	151B	18	8S	38E	5400	2-28	12.6	3.6	15.6	7.0
Gold Center	249	21	9S	36E	5340	3-1	31.2	9.0	-	11.6
IMNAHA RIVER										
Aneroid Lake No. 1	183	16	4S	45E	7480	3-1	83.1	32.1	36.7	19.7
Aneroid Lake No. 2	183A	16	4S	45E	7000	3-1	64.1	25.3	28.5	13.6
Coverdale	171	22	5S	47E	4250	2-23	14.3	4.5	17.4	5.4
GRANDE RONDE RIVER										
Aneroid Lake No. 1	183	16	4S	45E	7480	3-1	83.1	32.1	36.7	19.7
Aneroid Lake No. 2	183A	16	4S	45E	7000	3-1	64.1	25.3	28.5	13.6
Anthony Lake	155	18	7S	37E	7125	3-4	70.0	28.8	31.8	-
Beaver Reservoir	188	8	5S	37E	5340	3-2	25.8	*8.0	12.8	8.0
Meacham	221	24&25	1S	35E	4300	2-25	8.5	3.0	14.3	7.2
Moss Spring	186A	28	3S	41E	5850	2-28	54.8	19.0	24.1	16.3
Tollgate	212	32	4N	38E	5070	2-25	49.3	19.4	35.5	15.3

* Telegraphic: subject to minor revision.

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OREGON SNOW SURVEYS, MARCH, 1947

DRAINAGE BASIN and SNOW COURSE	Number or State	LOCATION			SNOW COVER MEASUREMENTS					
		Sec.	Twp.	Range	Date of Survey (In.)	Snow Depth (In.)	Same Approx.	Years Date 1946	Past Record	Av. Water Content of Record (Inches)
		LOW E R	C O L U M B I A	D R A I N A G E						
WALLA WALLA RIVER										
Tollgate	212	32	4N	38E	5070	2-25	49.3	19.4	35.5	15.3
UMATILLA RIVER										
Emigrant Springs	222	29	1N	35E	3925	2-25	0.5	0.2	12.7	4.9
Lucky Strike	223	28	3S	32E	5050	2-24	28.5	9.9	14.6	10.0
Meacham	221	24&25	1S	35E	4300	2-25	8.5	3.0	14.3	7.2
Tollgate	212	32	4N	38E	5070	2-25	49.3	19.4	35.5	15.3
WILLOW CREEK										
Arbuckle Mountain	241	33	4S	29E	5400	2-27	13.6	5.9	14.8	9.1
JOHN DAY RIVER										
Arbuckle Mountain	241	33	4S	29E	5400	2-27	13.6	5.9	14.8	9.1
Beech Creek Summit	246A	4	12S	30E	4800	2-28	1.0	0.4	6.8	2.9
Blue Mountain Springs	133	21	15S	35E	5900	2-27	34.4	10.4	19.6	10.4
Blue Mountain Summit	141	6	12S	36E	5098	2-27	15.1	5.2	12.3	7.3
Gold Center	249	21	9S	36E	5340	3-1	31.2	9.0	-	11.6
Izee Summit	964	28	16S	29E	5293	2-27	11.1	3.2	9.7	5.8
Olive Lake	245	14	9S	33½E	6000	2-27	45.6	16.7	22.2	12.3
Snow Mountain	965	1	19S	26E	6300	2-22	33.8	11.1	16.2	10.0
Starr Ridge	247B	20	15S	31E	5150	2-27	5.4	1.6	8.3	3.4



OREGON SNOW SURVEYS, MARCH, 1947

DRAINAGE BASIN and SNOW COURSE	Number or State	Sec. Twp.	Range	Elev.	LOCATION		SNOW COVER MEASUREMENTS					Past Record	
					Date of Survey	Snow Depth (In.)	Water Content Same Approx. Date	Years of Record	Av. Water Content	Record (Inches)			
1947												1946	1945
DESCHUTES RIVER													
Cascade Summit	321	7	23S	6E	4880	No Measurement	40.5	14.0	3	23.0			
Charlton Lake	327	23	21S	6E	5750	2-14	65.1	22.8 ^b	-	-			
Clear Lake	361	29	4S	9E	3500	2-22	12.5	4.5	15.7	3.1	5	7.7	
Hogg Pass	351	24	13S	7½E	4755	2-28	68.1	30.3	52.4	16.8	6	32.0	
Marks Creek	344	25	12S	19E	4540	2-27	0.0	0.0	6.0	1.0	9	4.8	
New Dutchman Flat	324A	21	18S	9E	6400	2-18	91.8	36.0	-	-		-	
Ochoco Meadows	341	21	13S	20E	5200	2-28	10.4	3.2	14.6	8.2	11	9.7	
Rock Creek	362	1	4S	10E	4200	2-27	19.3	9.2	17.7	-	1	17.7	
Snow Mountain	965	1	19S	26E	6300	2-22	33.8	11.1	16.2	10.0	3	10.6	
Tamarack	342	8	15S	25E	4800	2-24	2.0	1.5	9.8	5.1	4	6.3	
SANDY RIVER													
Phlox Point-Mt. Hood	452	6	3S	9E	5600	3-1	102.1	46.0 ^c	76.0	26.8	9	43.5	
Still Creek	451	25	3S	8½E	3700	2-28	29.9	12.2 ^c	33.7	7.3	9	16.2	
CLACKAMAS RIVER													
Peavine Ridge	591	14&15	6S	7E	3500	3-3	23.0	8.5	19.5	6.8	9	12.8	
WILLAMETTE RIVER													
Breitenbush	551	21	9S	7E	2325	2-22	12.2	4.4	5.0	Trace	5	1.6	
Cascade Summit	321	7	23S	6E	4880	No Measurement	40.5	14.0	14.0		3	23.0	
Champion	522	12	23S	1E	4500	2-28	14.6	5.8	35.2	4.9	8	19.5	
Hogg Pass	351	24	13S	7½E	4755	2-28	68.1	30.3	52.4	16.8	6	32.0	
Marion Forks	553	28	11S	7E	2730	2-28	17.5	7.6	17.4	Trace	6	8.7	
Santiam Junction	552	14	13S	7E	3990	2-28	27.8	12.5	32.8	7.0	6	16.4	
Waldo Lake	521A	15	21S	6E	5500	2-13	58.4	20.1 ^b	-	-	-	-	

b. Mid-month measurement: included for comparison only. c. Accuracy doubtful: being remeasured

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OREGON SNOW SURVEYS, MARCH, 1947

DRAINAGE BASIN and SNOW COURSE	Number or State	LOCATION			SNOW COVER MEASUREMENTS					
		Sec.	Twp.	Range	Date of Survey	Snow Depth (In.)	Same Approx. Date	Years of Record	Av. Water Content (Inches)	
		INTERRIOR	DRAINGE	1947	1946	1945	Record			
SILVER LAKE										
Silver Creek	942	25&26	29S	13E	4900	2-26	0.0	0.0	0.0	7 3.4
CHEWAUCAN RIVER										
Mill Creek	922	1	34S	17E	6200	2-27	12.2	3.9	9.6	8 6.8
HARNEY BASIN										
Deer Creek	973	17	36S	26E	6670	2-27	0.3	0.1	8.1	- 6 7.6
Hart Mountain	971	1	36S	25E	6350	2-27	0.0	0.0	0.6	- 7 3.6
Idylwild Park	961A	33	20S	31E	5200	3-4	7.2	1.9	8.6	4.3 11 6.6
Izee Summit	964	28	16S	29E	5293	2-27	11.1	3.2	9.7	5.8 11 8.3
Rock Spring	134	23	18S	32E	5100	3-1	6.1	2.0	8.0	4.7 11 7.1
Snow Mountain	965	1	19S	26E	6300	2-22	33.8	11.1	16.2	10.0 3 10.6
Starr Ridge	247B	20	15S	31E	5150	2-27	5.4	1.6	8.3	3.4 11 6.0
WARNER LAKE										
Camas Creek	911A	5	39S	21E	5720	2-28	8.2	3.0	13.0	8.8 3 9.8
GUANO LAKE										
Bald Mountain	Nev.	17	45N	21E	6720	2-28	5.0	0.6	3.1	3.3 7 4.6
Guano Creek	972	13	36S	25E	6480	3-1	1.5	0.7	0.7	- 6 7.3

OREGON SNOW SURVEYS, MARCH, 1947

DRAINAGE BASIN and SNOW COURSE	Number or State	Sec.	Twp.	Range	Elev.	Survey (In.)	LOCATION				SNOW COVER MEASUREMENTS			
							Date of Survey	Snow Depth	Same Approx. Date	Years of Record	Water Content (In.)	Past Record av. Water Content (Inches)		
							W E S T	C O A S T	D R A I N A G E					
UMPQUA RIVER														
Champion	522	12	23S	1E	4500	2-28	14.6	5.8	35.2	4.9	8	19.5		
Diamond Lake	743	29	27S	6E	5315	2-27	26.8	10.1	31.8	9.7	18	15.5		
ROGUE RIVER														
Althouse	7216	17	41S	7W	4400	2-28	0.0	0.0	5.0	0.7	8	4.8		
Annie Spring	831	19	31S	6E	6018	2-28	73.6	29.8	61.2	24.2	13	36.3		
Billie Creek Divide	722	30	36S	5E	6000	2-25	27.7	12.1	29.9	15.2	15	21.8		
Fish Lake	725	3	37S	4E	4865	2-26	7.4	4.0	16.8	4.5	12	12.6		
Grayback Peak	727	9	40S	5W	6000	3-1	12.1	4.0	20.4	7.2	5	17.0		
Hyatt Prairie Reservoir	723	15	39S	3E	4900	2-26	6.7	2.6	13.3	3.7	14	10.2		
Park Headquarters	838	8	31S	6E	6450	3-6	106.9	39.6	66.4	32.1	3	53.6		
Scragg Mountain (Calif.)	7220	9	47N	10W	6200	2-25	28.4	13.4	-	13.4	5	21.4		
Seven Lakes No. 1	7211	3	34S	5E	6800	2-26	83.1	26.0	-	-	2	46.0		
Seven Lakes No. 2	7212	26	33S	5E	6200	2-26	64.2	23.2	-	-	2	41.0		
Silver Burn	7219	30	30S	4E	3720	3-6	2.6	1.5	17.4	0.8	10	10.1		
Siskiyou Summit	728	17	40S	2E	4630	2-27	0.0	0.0	8.2	0.4	11	6.1		
South Fork Canal	7218	12	33S	3E	3500	3-1	0.0	0.0	4.0	Trace	10	3.7		
Wagner Butte	7213	1	40S	1W	6900	2-27	26.1	9.2	14.9	8.5	9	13.8		
KLAMATH LAKE BASIN														
Annie Spring	831	19	31S	6E	6018	2-28	73.6	29.8	61.2	24.2	13	36.3		
Beatty 2/	22	36S	12E	4300	2-28	0.0	0.0	0.3	0.0	20	0.2			
Billie Creek Divide	722	30	36S	5E	6000	2-25	27.7	12.1	29.9	15.2	15	21.8		
Chemult No. 1	834	21	27S	8E	4760	3-1	6.0	3.3	17.6	5.1	10	10.9		
Chiloquin 2/	34	34S	7E	4187	2-28	0.0	0.0	0.9	0.0	17	1.6			

OREGON SNOW SURVEYS, MARCH, 1947

DRAINAGE BASIN and SNOW COURSE	Number or State	LOCATION			SNOW COVER MEASUREMENTS					
		Sec.	Twp.	Range	Date of Survey (In.)	Snow Depth (In.)	1947	1946	1945	Record
KLAMATH LAKE BASIN (Cont'd.)										
Crowder Flat (Calif.)	30	47N	11E	5200	2-25	0.0	0.0	5.4	-	6
Crystal 2/	26	34S	6E	4200	2-28	0.0	0.0	11.0	2.0	17
Fort Klamath 2/	22	33S	7½E	4150	2-28	0.0	0.0	3.3	0.0	20
Harriman Lodge 2/	3	36S	6E	4200	2-28	0.0	0.0	4.6	0.2	4.2
Hyatt Prairie Reservoir	723	15	39S	3E	4900	2-26	6.7	2.6	13.3	3.7
Kirk 2/	1	33S	7E	4533	2-28	Trace	11.8	0.0	0.0	19
Lake of the Woods No. 1	835	11	37S	5E	4960	2-28	7.9	2.1	12.7	3.7
Park Headquarters	838	8	31S	6E	6450	3-6	106.9	39.6	66.4	32.1
Quartz Mountain	811	2	38S	16E	5320	2-28	0.0	0.0	11.1	4.9
Quartz Mountain 2/	33	37S	16E	5504	2-28	0.0	0.0	9.0	8.5	16
Seven Lakes No. 1	7211	3	34S	5E	6800	2-26	83.1	26.0	-	-
Seven Lakes No. 2	7212	26	33S	5E	6200	2-26	64.2	23.2	-	-
Summer Rim	841	15	33S	16E	7200	2-28	31.5	9.8	-	-
Sun Mountain	836	22	32S	7½E	5350	3-3	46.2	15.4	39.0	13.9
Yamsey 2/	20	31S	11E	4600	2-28	0.0	0.0	6.2	0.0	18
GOOSE LAKE BASIN										
Camas Creek	911A	5	39S	21E	5720	2-28	8.2	3.0	13.0	8.8
Quartz Mountain	811	2	38S	16E	5320	2-28	0.0	0.0	11.1	4.9
Quartz Mountain 2/	33	37S	16E	5504	2-28	0.0	0.0	9.0	8.5	16

2/ Water content determined by melting one measured sample (The California Oregon Power Co.'s station)

The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Commerce
Weather Bureau
Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Indian Service
National Park Service
War Department
Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company
Portland General Electric Company
The California Oregon Power Company

MUNICIPALITIES

City of Corvallis
City of LaGrande
City of The Dalles

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE CORPORATIONS

Amalgamated Sugar Company



